

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 6,886,293 B2
DATED : May 3, 2005
INVENTOR(S) : James Daniel Forehand

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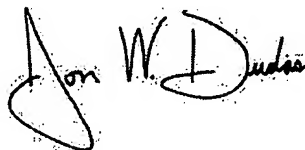
It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

The title page should be deleted and substitute therefore the attached title page.

Delete drawing sheets, 1-13, and substitute therefore the drawing sheets, consisting of Figs. 1-13 as shown on the attached pages.

Signed and Sealed this

Twenty-seventh Day of September, 2005

A handwritten signature in black ink, appearing to read "Jon W. Dudas". The signature is stylized with a large, looped initial "J" and a cursive "Dudas".

JON W. DUDAS
Director of the United States Patent and Trademark Office

(12) **United States Patent**
Forehand(10) Patent No.: **US 6,886,293 B2**
(45) Date of Patent: **May 3, 2005**(54) **METHOD AND APPARATUS FOR KILLING INSECTS BY TRAPPING LARVAE**(76) Inventor: **James Daniel Forehand, 42 Parkstone Ct., Stone Mountain, GA (US) 30087**

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

3,224,145 A	12/1965	Ballard	47/81
3,590,119 A	6/1971	Cardarelli et al.	424/409
3,643,371 A	2/1972	Gordon	43/131
3,997,999 A	12/1976	Evans	43/107
4,002,146 A	1/1977	Neff	119/51.04
4,103,450 A	8/1978	Whitcomb	43/131
4,218,843 A	8/1980	Clarke, Jr.	43/131
4,282,673 A	8/1981	Focks et al.	43/113
4,283,878 A	8/1981	Hill et al.	43/114
4,310,985 A	1/1982	Foster et al.	43/131

(Continued)

(21) Appl. No.: **10/671,947**(22) Filed: **Sep. 26, 2003**(65) **Prior Publication Data**

US 2004/0074139 A1 Apr. 22, 2004

Related U.S. Application Data

(60) Provisional application No. 60/413,963, filed on Sep. 26, 2002

(51) Int. Cl.⁷ **A01M 1/10**(52) U.S. Cl. **43/122; 43/107**(58) Field of Search **43/107, 121, 122, 43/132.1, 133**(56) **References Cited****U.S. PATENT DOCUMENTS**

407,889 A	• 7/1889	Davis	43/121
794,637 A	• 7/1905	Park et al.	43/131
1,005,530 A	• 10/1911	Fritsch	43/107
1,085,329 A	• 1/1914	Gabel	43/122
1,577,351 A	• 3/1926	Alvarez	43/131
1,623,439 A	• 4/1927	Edward	43/107
1,714,666 A	• 5/1929	Gring	43/131
1,787,421 A	• 12/1930	Ruddell	43/107
1,831,476 A	• 11/1931	Bennett	222/54
1,919,916 A	• 7/1933	Taylor	43/107
1,936,644 A	• 11/1933	Schroder	43/121
1,968,954 A	• 8/1934	Metzger	43/107
1,974,549 A	• 9/1934	Spencer et al.	119/6.5
2,109,642 A	• 3/1938	Hunt	43/124
2,254,948 A	• 9/1941	Kubalek	43/131
2,424,421 A	• 7/1947	Temme	43/121
2,539,633 A	• 1/1951	Morrill	119/6.5
2,970,565 A	• 2/1961	Reynolds	119/6.5

FOREIGN PATENT DOCUMENTS

FR	2 505 140	11/1982	
WO	WO 00/74475 A1	12/2000 A01K/61/00

Primary Examiner—Kurt Rowan

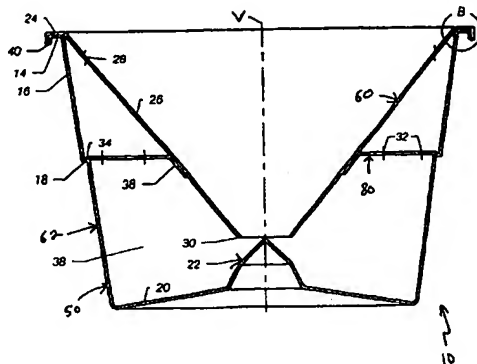
(74) Attorney, Agent, or Firm—Merchant & Gould

(57)

ABSTRACT

A method and apparatus provide for the killing of insects by trapping the larvae, which either prevents development into adults or traps the adults developed from the larvae to prevent further reproduction and harm. In one preferred embodiment, the apparatus includes a container with an inverted cone or other protrusion and a second non-horizontal surface, such as a funnel, positioned above the inverted cone. The funnel defines an opening above the inverted cone. A barrier may also be included that abuts the underside of the funnel. A liquid such as water is placed in the container at a level at least above the opening such that eggs laid in the water become larvae that swim downward and are directed through the opening by the funnel and are directed away from the opening by the inverted cone. The larvae either drown, if the water level is above the barrier, or else become trapped adult mosquitoes that cannot escape from the container. It is noted that this abstract is provided to comply with the rules requiring an abstract that will allow a searcher or other reader to ascertain quickly the subject matter of the technical disclosure and is submitted with the understanding that it will not be used to interpret or limit the scope or meaning of the claims.

4 Claims, 13 Drawing Sheets



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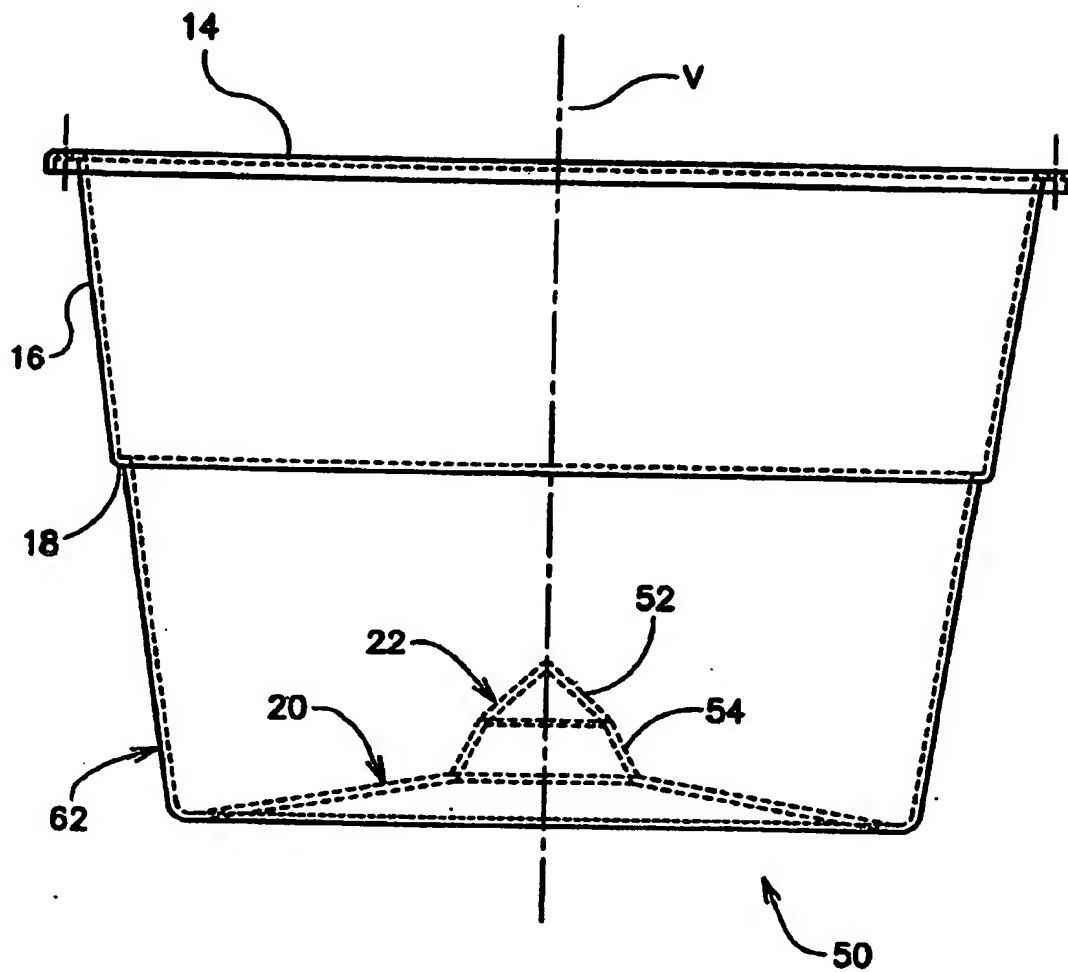


FIG. 1

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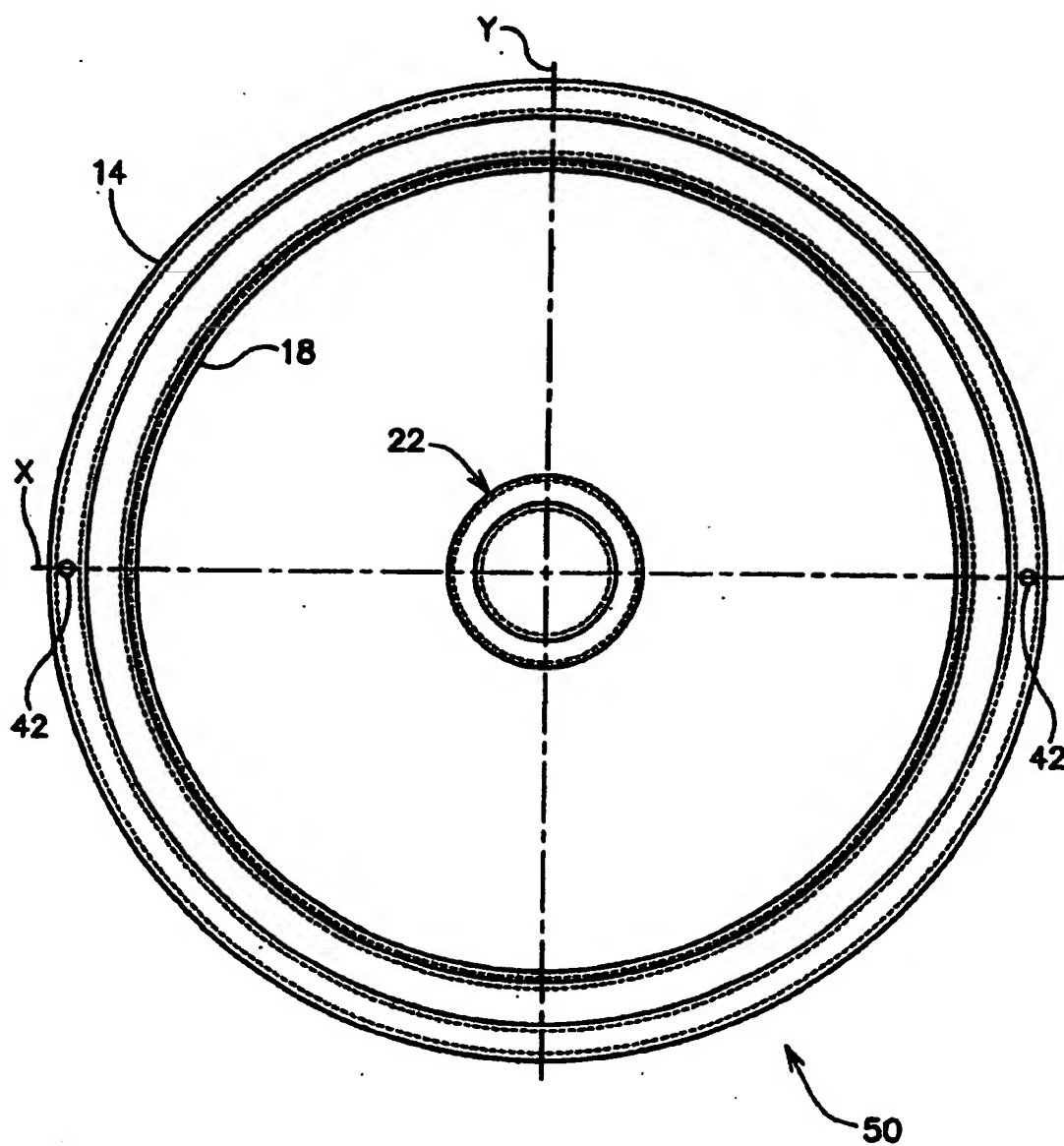


FIG. 1.1

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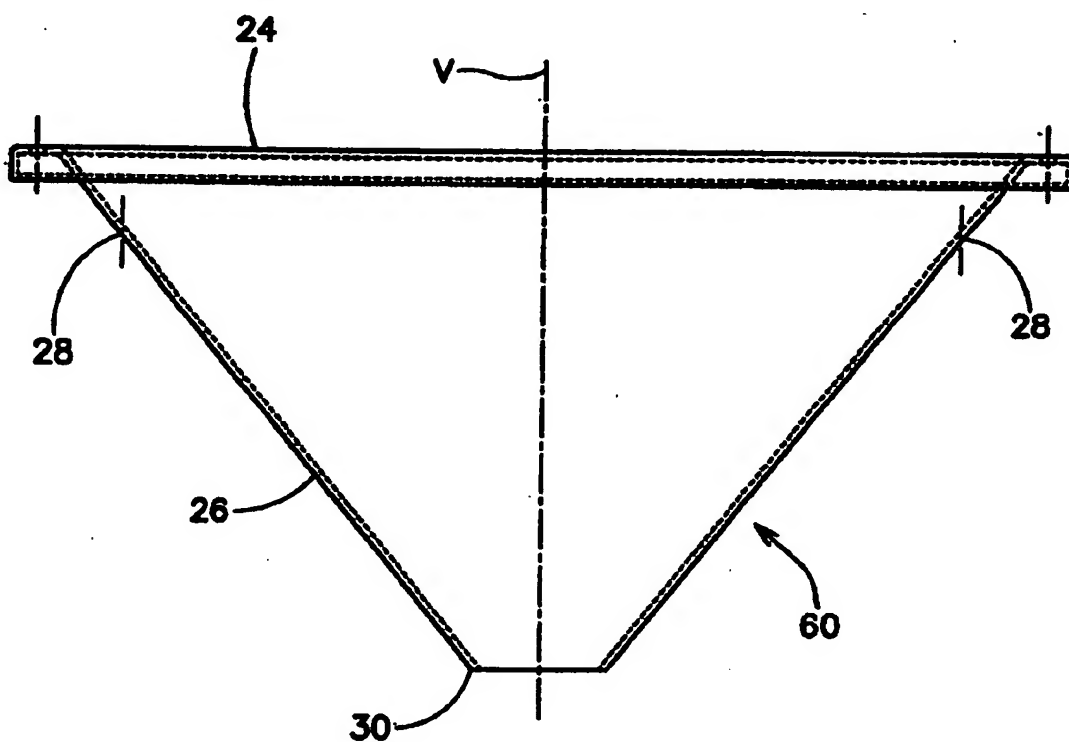


FIG. 2

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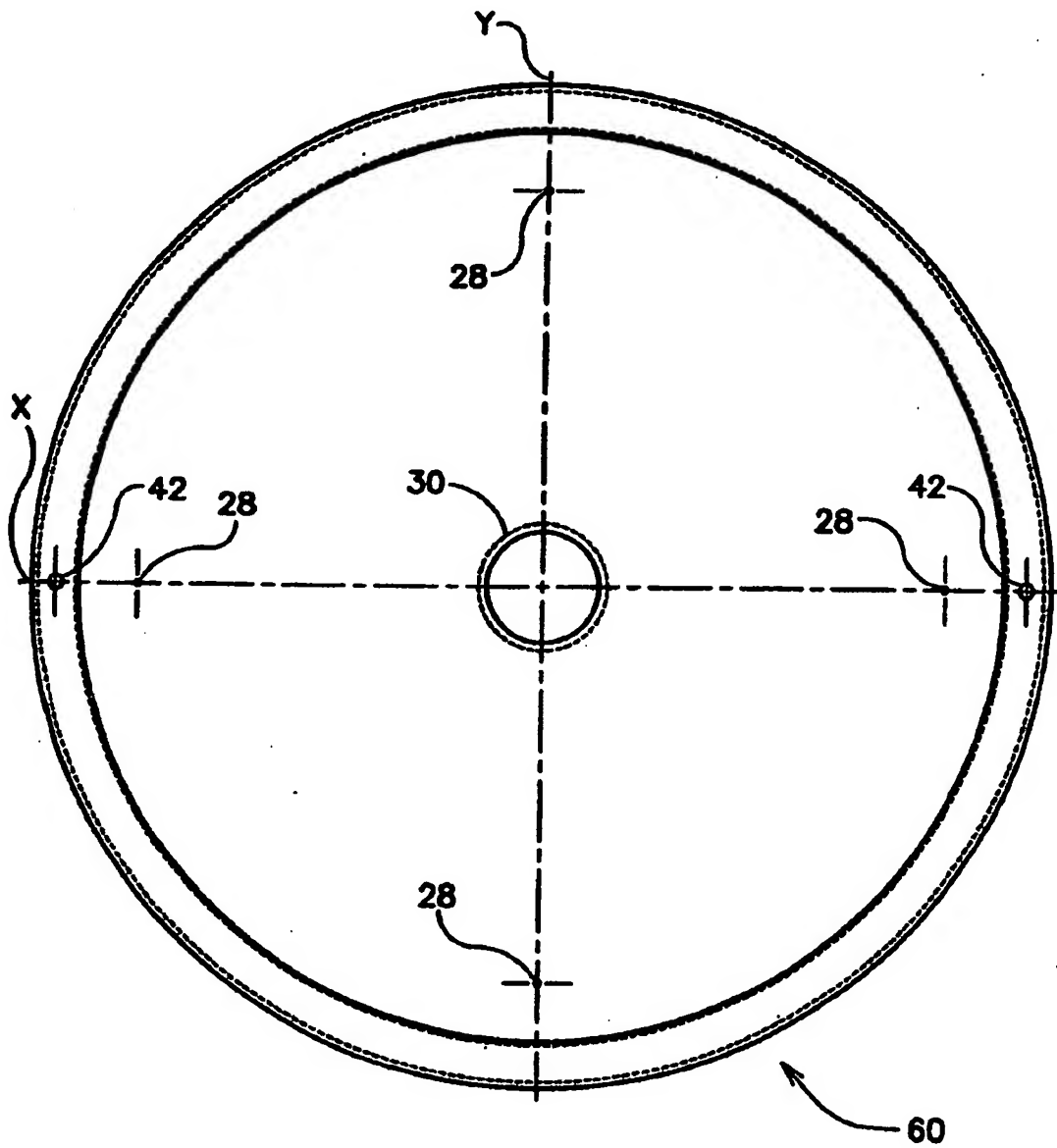


FIG. 2.1

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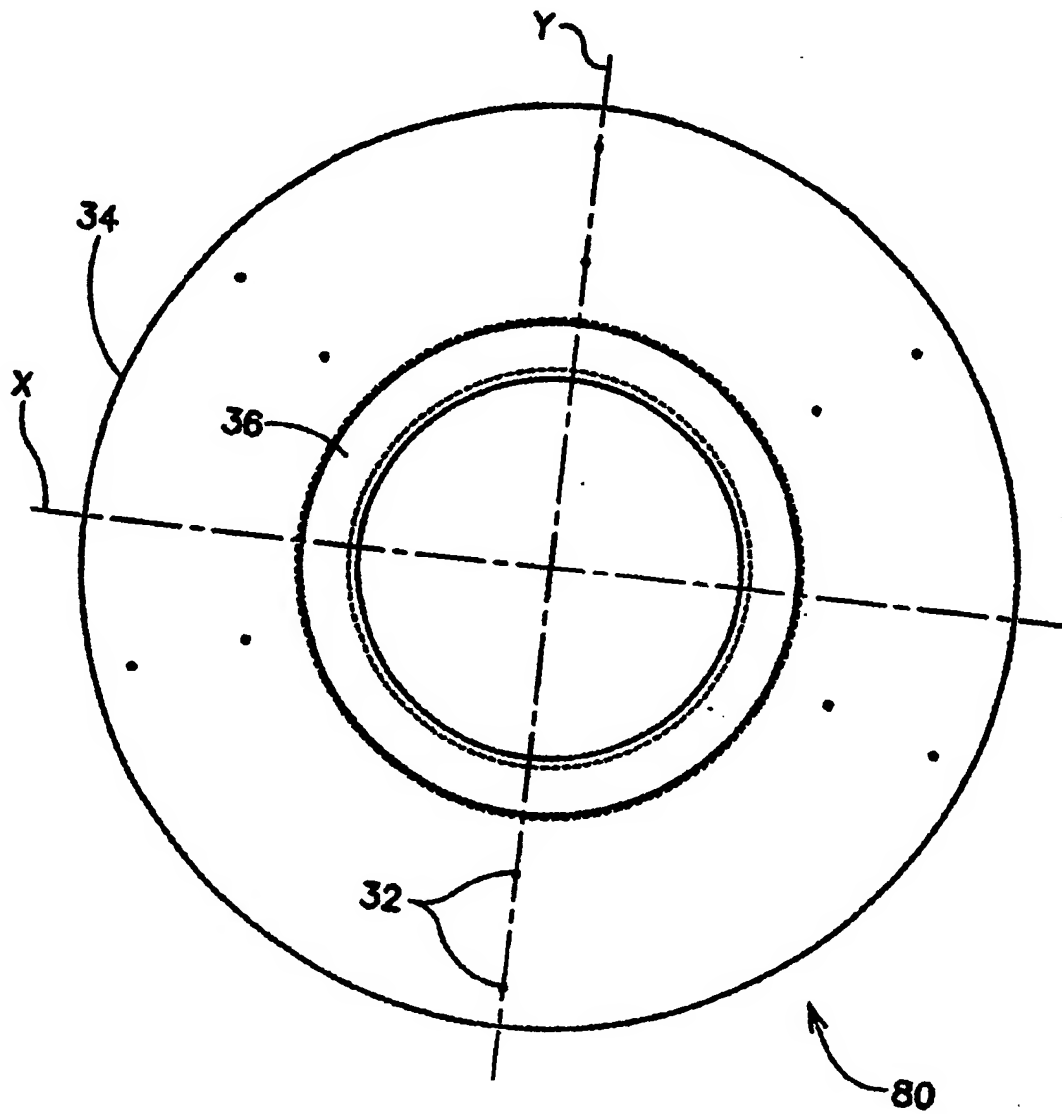


FIG. 3

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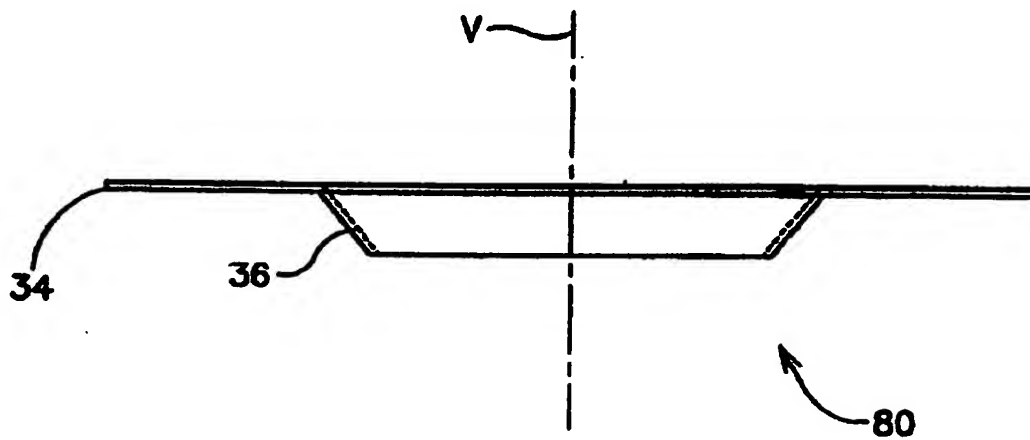


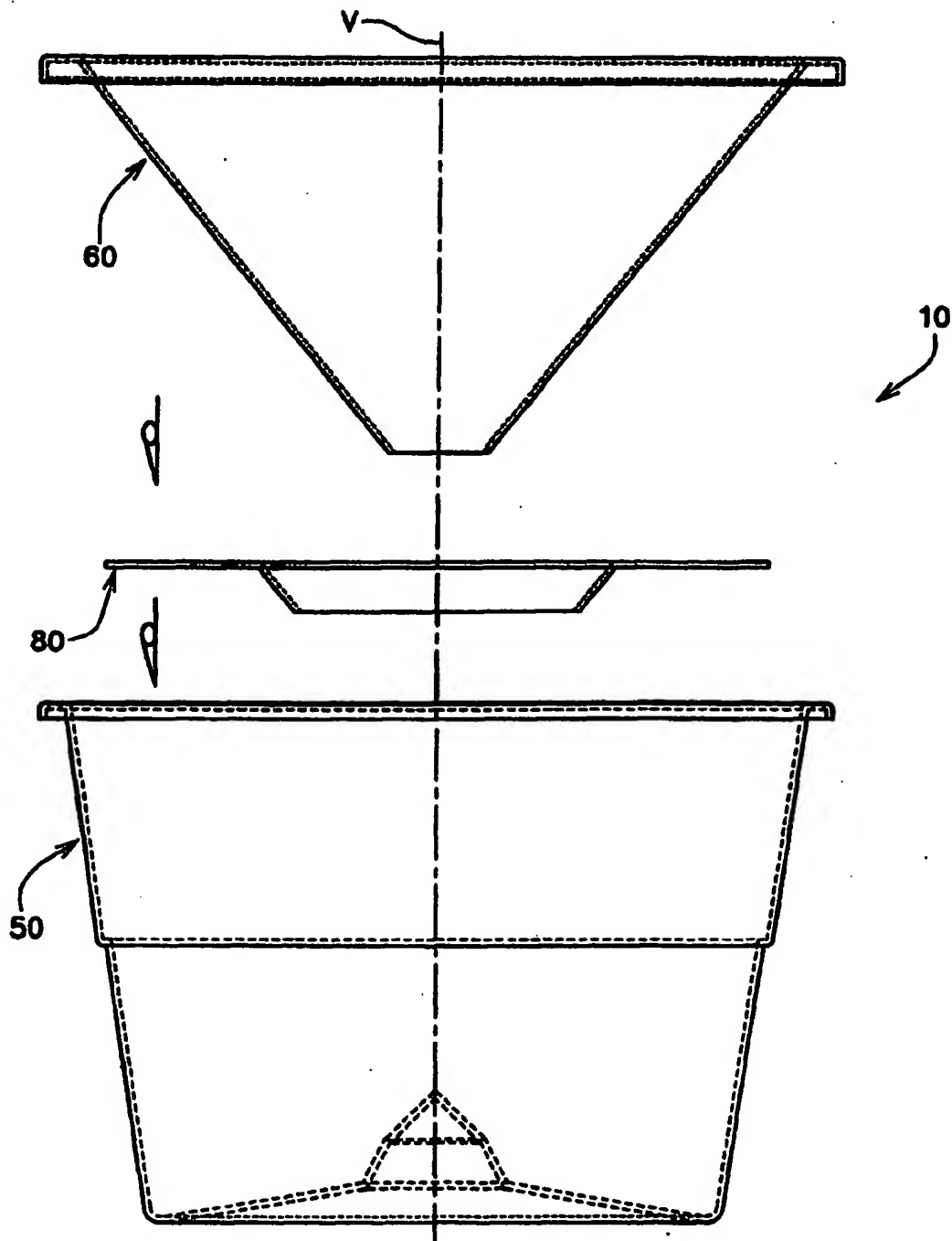
FIG. 3.1

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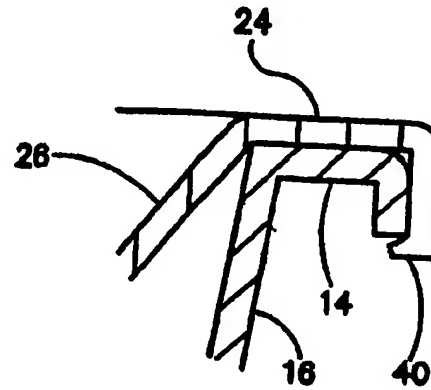


FIG. 5.1

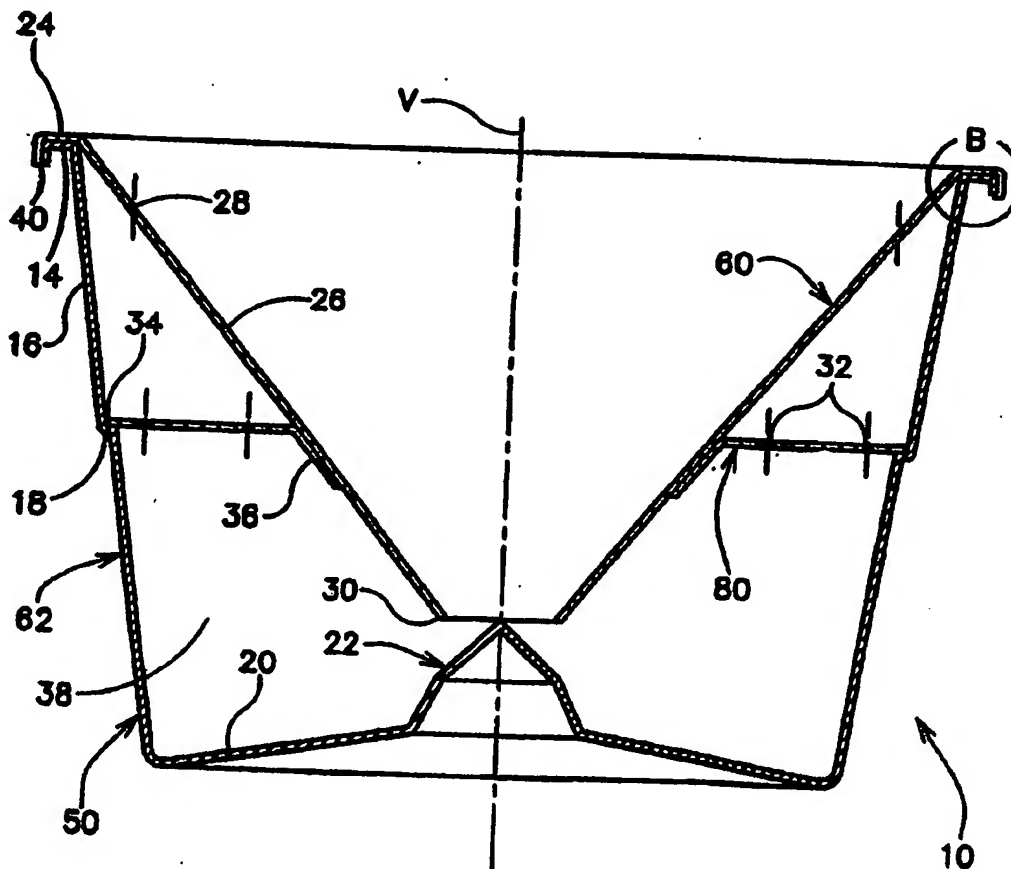


FIG. 5

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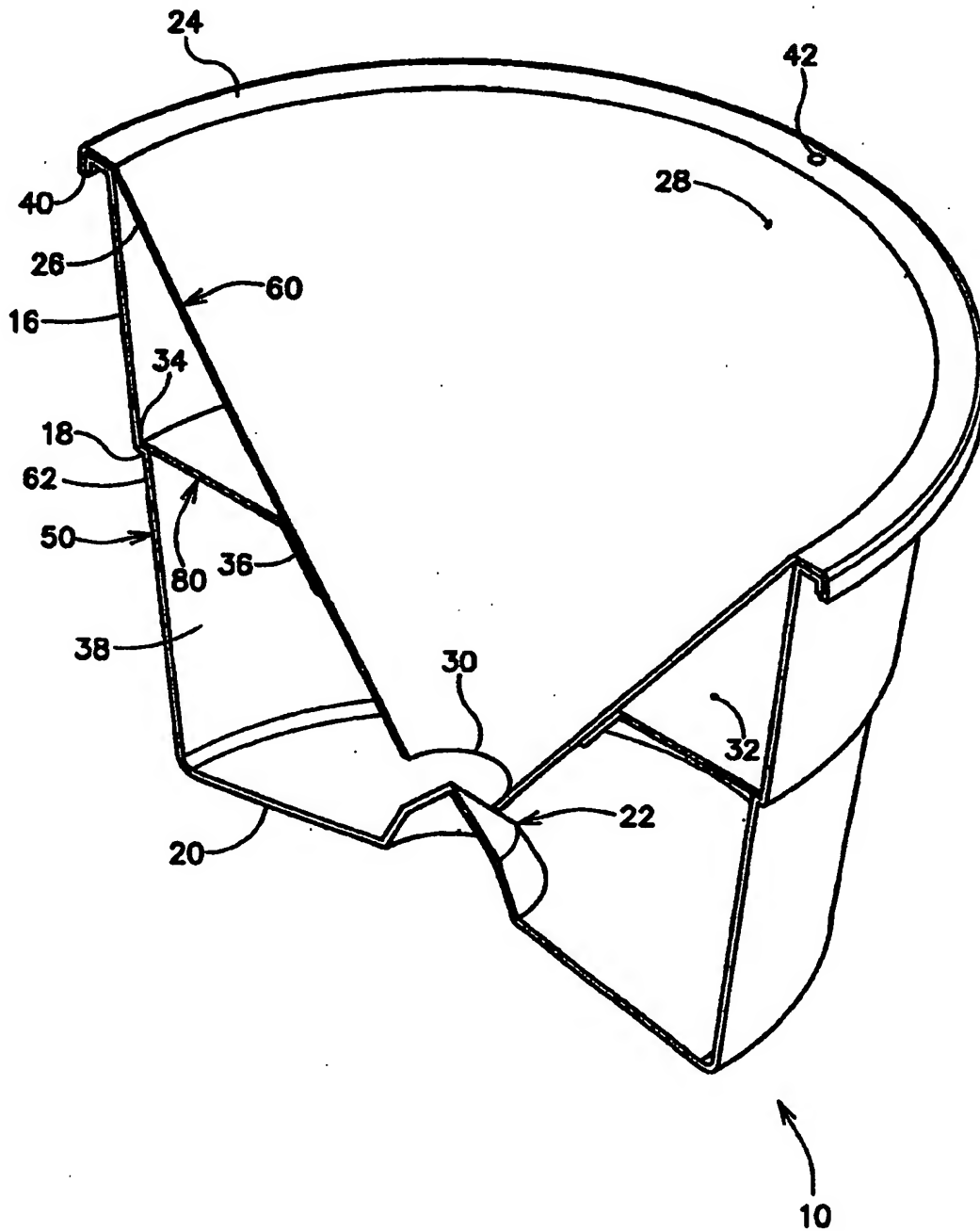


FIG. 6

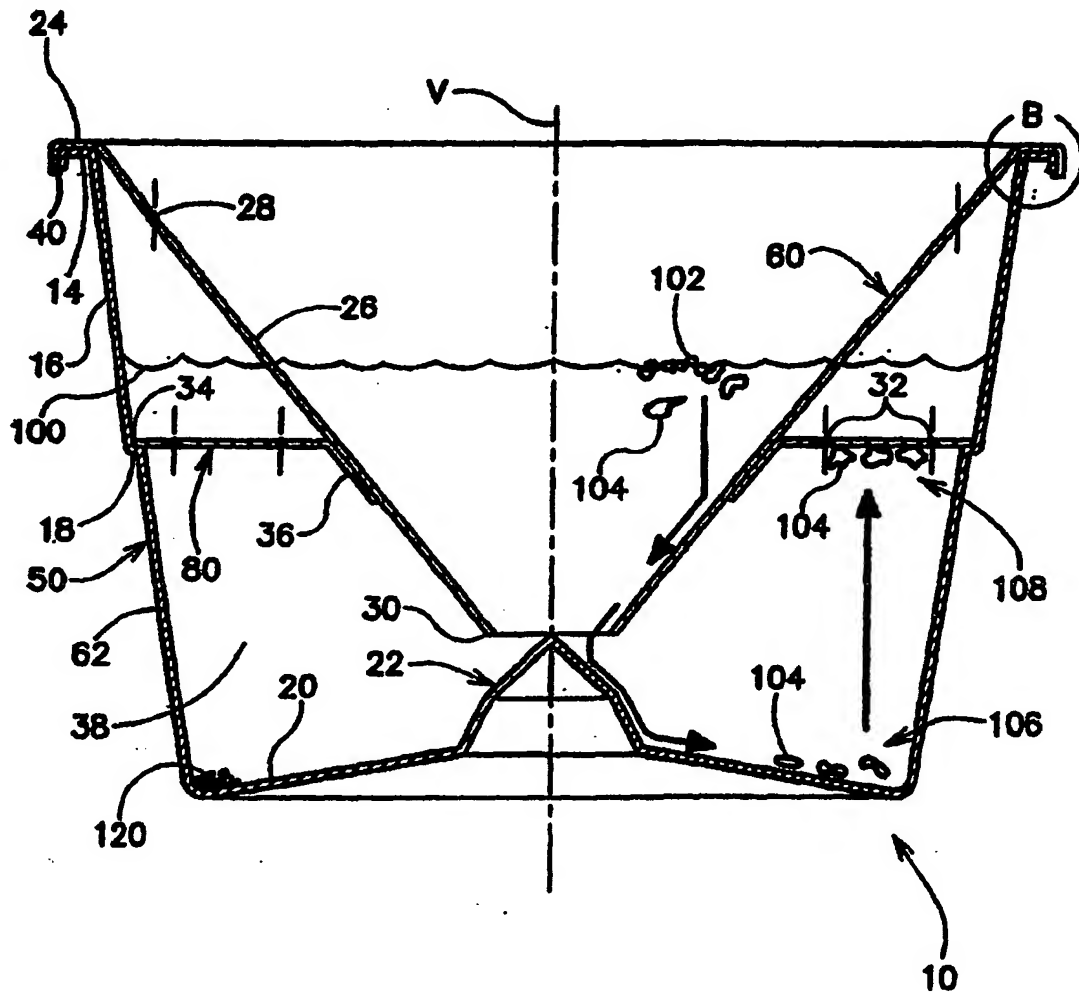


FIG. 7

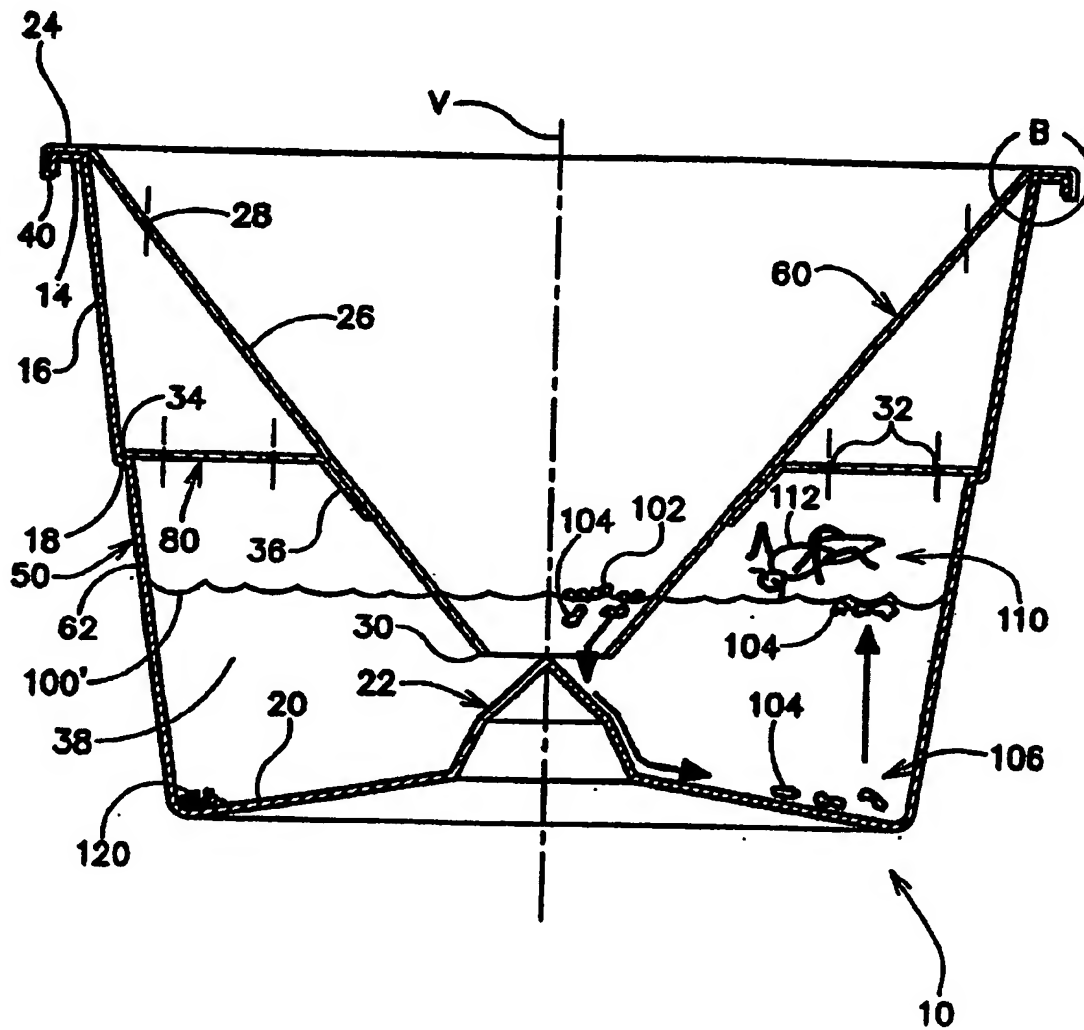


FIG. 8

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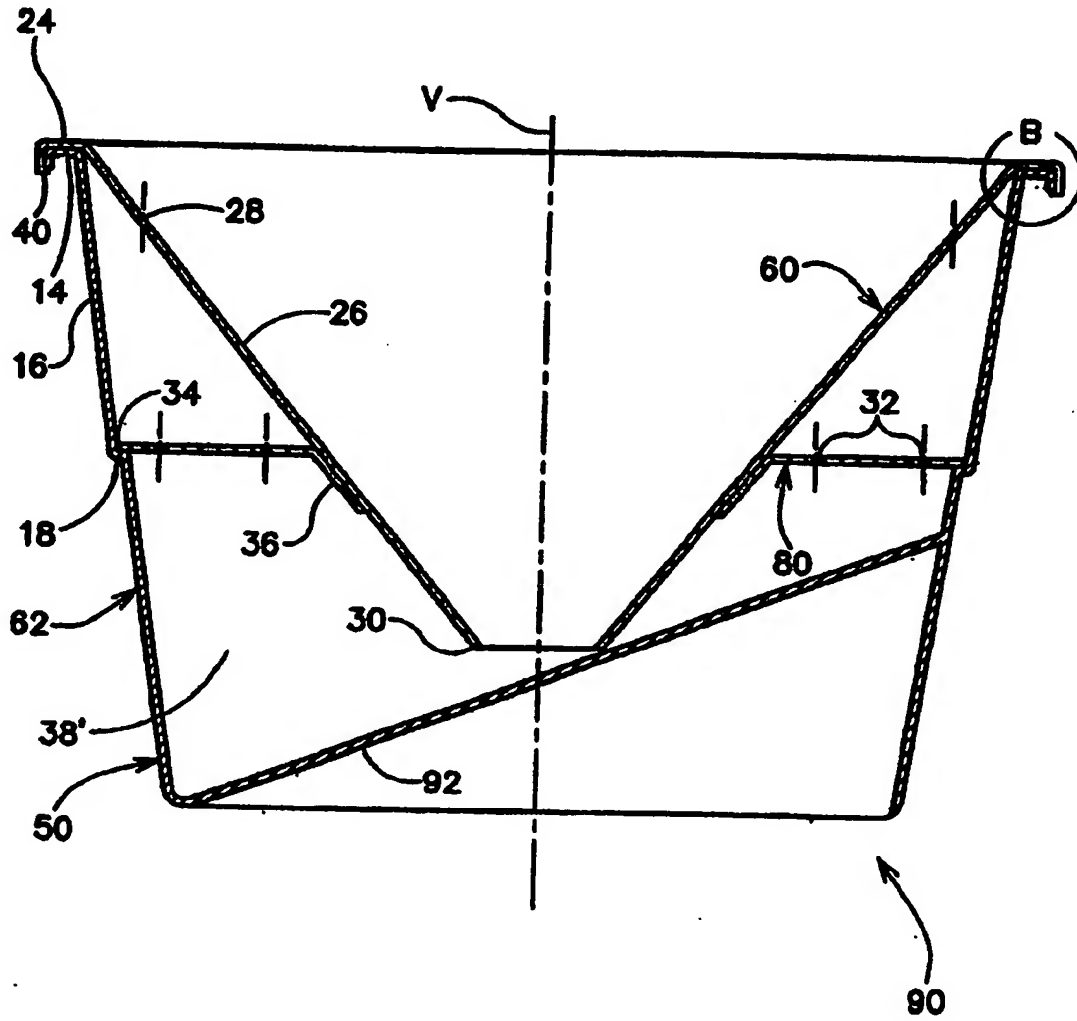


FIG. 9

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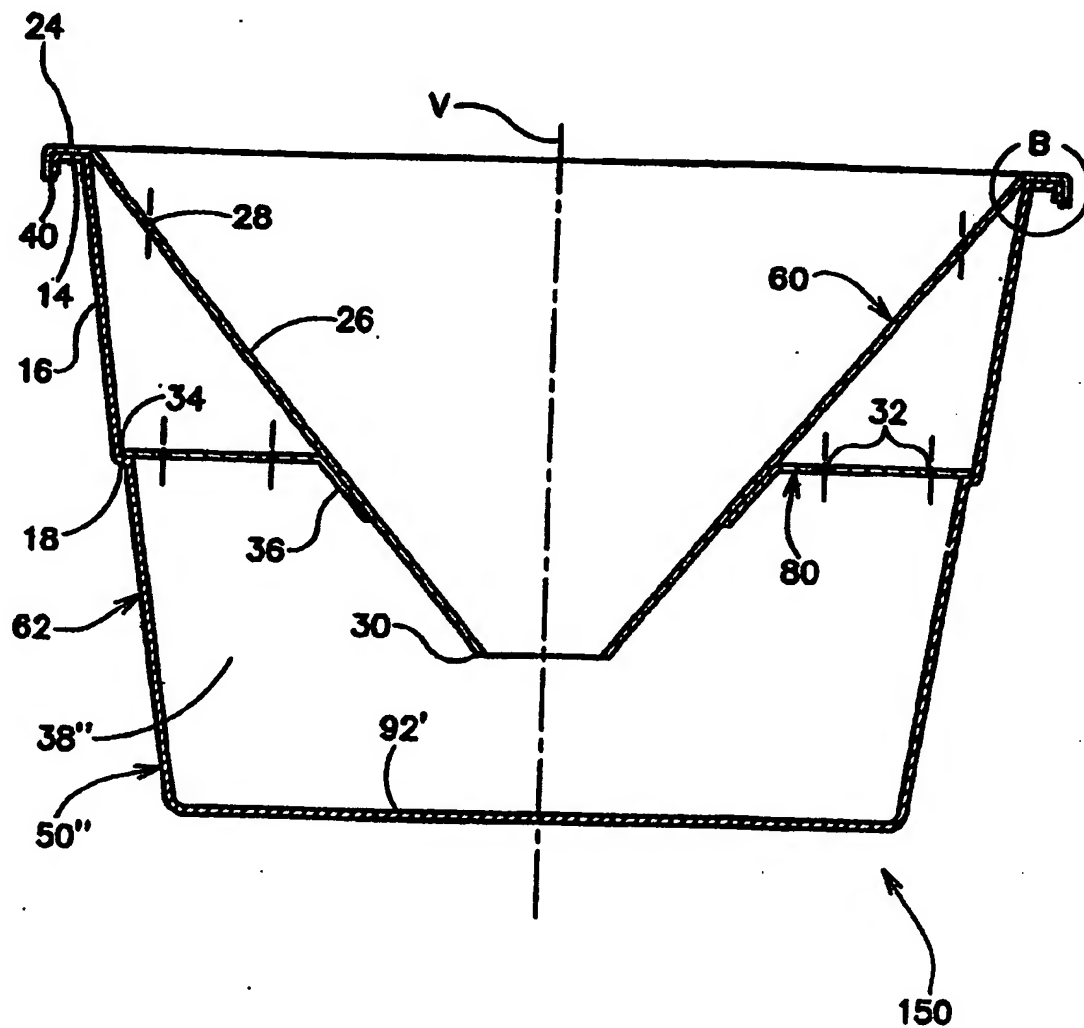


FIG. 10